



South Carolina  
Department of Education

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**South Carolina Department of Education**

**Longitudinal Data Systems Update**

**March 1, 2007**



## South Carolina Department of Education Longitudinal Data Systems Update March 1, 2007

As 2007 begins, the South Carolina Department of Education (SDE) is pleased by progress in many areas that advance development of a Longitudinal Data Warehouse.

**GOALS:** The South Carolina Longitudinal Data System (SC LDS) project set the following goals for Year 1, 2006:

- Build and implement a vertical reporting system (school to district to state) that is based on a statewide implementation of Schools Interoperability Framework (SIF)
- Extend SIF to transfer student data horizontally between South Carolina's public school districts, between state-level systems, and to other states and higher education
- Design and develop an enterprise-wide data architecture to include a data dictionary and a data model
- Expand the state-level data repository to include EDEN data elements and expedite federal reporting
- Implement a user-friendly reporting framework that provides researchers and stakeholders with access to the state-level data repository.

**OBJECTIVES:** The SDE set the following objectives for Year 1:

- Expand the data repository to include additional EDEN data elements
- Complete the enterprise-wide data dictionary
- Complete the pilot preparation of the Student Information System to transfer data from the school to the state level, and complete SIF Agent customization for vertical reporting for all districts
- Pursue alternate sources of funding to sustain the SC LDS.

**ACHIEVEMENTS:** During Year 1, the SDE realized the following accomplishments:

- A data architecture document is complete, and serves as the foundation for all future work on the SC LDS project. It delineates the SDE's current technology environment and how that environment may be altered to ensure the success of the longitudinal data warehouse.
- An inventory of data elements revealed the many different sources of data to include in the data warehouse. Although the goal was to complete the data dictionary by the end of the first year, this effort is still in progress. A data dictionary along with a tool to search and update the dictionary has been developed, although neither is ready for deployment. More work is required to complete a user friendly interface. A quality review of all data elements currently in the dictionary is also outstanding.
- A Request for Proposals (RFP) was issued to obtain a State Data Manager. The State Data Manager will: (1) fully automate the collection of student-, teacher-, and school-level data from all public school districts in South Carolina, and (2) ensure that data are collected in a timely manner and provide more flexibility in altering data collection schedules. The State Data Manager will also provide a mechanism for fully editing all data elements at the point of



collection. This will identify errors in the data and allow district and school personnel to view the errors and correct them at the source. Ultimately, the State Data Manager will ensure that data are clean when added to the data warehouse.

- The SDE began developing the data warehouse by collaborating with the Office of Research and Statistics (ORS) of the South Carolina Budget and Control Board that will design and build this data store. The ORS has extensive experience in the area of data warehousing and data analysis. Early in 2007, the SDE delivered two years data to the ORS for inclusion in the data warehouse. The ORS is now defining table structures, validation procedures, and loading this initial data. A formal "Statement of Work" and contract are in progress.
- To improve data quality, the SDE implemented an extensive set of new data validation rules in the form of new and enhanced data validation reports for district users.
- To improve data quality, the SDE employed a Data Quality Specialist. This Specialist travels to each school district, provides technical assistance and professional development sessions to school and district administrators about the importance of consistent, quality data. This Data Quality Specialist made a positive impact in year 1. Districts continue to ask for her services and assistance as the LDS project enters the second year.

**STAKEHOLDERS:** During the year, the SDE made several presentations to potential stakeholders and partners. These presentations generated interest in the LDS project. Most notable have been ongoing contacts with the South Carolina Commission on Higher Education (CHE), the Education Oversight Committee (EOC) of the South Carolina General Assembly, the District Technology Advisory Committee (TAC), and the District Technology Roundtable.

A key partner, the TAC has expanded from 10 to 12 districts, and now meets each month rather than twice a year as proposed. This committee is enthusiastic about the LDS project offering invaluable insight into district issues. TAC members participate eagerly in shared decision making. Three districts for the SIF horizontal pilot came from TAC. Members also serve on the committees for the State Data Manager RFP and the Electronic Transcript RFP.

The SDE Project Team is working on electronic student transcript and student record exchange system solutions as part of LDS. Representatives from higher education, local colleges, and the TAC have agreed to help create and review the solutions-based RFP for the transcript system. Technical information has been collected from several sources during research on the various methods currently used for student transcript systems. The vendors identified so far are XAP, Triand, The Education Edge, ESP Solutions Group, and Docufide.

To ensure the most effective design for LDS user interfaces, a Core Advisory Group has been formed. This group consists of researchers and educators who will guide the design of dashboards, presentation graphics, and metrics.



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**PROFESSIONAL DEVELOPMENT:** To ensure that the SDE's project staff remains current on LDS issues and concerns, they attended the following professional meetings:

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| • eScholar Annual Conference ( <i>student identification solution providers</i> ) | December 2005  |
| • NCES Winter Conference                                                          | February 2006  |
| • SIF Quarterly Conference                                                        | February 2006  |
| • SIF Quarterly Conference                                                        | April 2006     |
| • NCES Summer Data Conference                                                     | July 2006      |
| • SIF Quarterly Conference                                                        | September 2006 |
| • EDEN Conference                                                                 | October 2006   |
| • IES Annual Grantee Conference                                                   | November 2006  |
| • SIF Quarterly Conference                                                        | February 2007  |

**CHALLENGES:** This progress was accomplished despite setbacks in other areas, including entering into contractual agreements with vendors. Due to the size and scope of the work, SDE legal counsel deemed it necessary to issue RFPs rather than sole source the work involved. While this ultimately benefits the LDS project, it created a considerable delay for first year tasks.

Project management posed challenges for the project during the first year. Due to turnover and changes in functional management responsibilities, a full-time project manager/coordinator became a requirement. In January 2007, Debra Holdren, a certified Project Management Professional (PMP), joined the team as Project Coordinator. Ms Holdren oversees daily work on the project and is accountable for all project management responsibilities. Ms. Holdren reports to the Project Manager, Tom Olson.

**LOOKING FORWARD:** For year 2, the SDE has established the following goals:

- Complete the data model for the data repository including all necessary Teacher Quality data elements
- Deliver reports and analyses to state-level stakeholders using new reporting and analysis tools
- Complete and implement vertical reporting application that transfers data from the school level to the state level using SIF
- Complete and implement the horizontal transfer of SASI student records from district to district
- Pursue alternate sources of funding to sustain the SC LDS

The SDE enthusiastically greets 2007 and is poised for completion of the outstanding 2006 tasks as well as these new goals.